

STIC-Biotech/ChemLib

From: Pak, Michael
Sent: Thursday, November 06, 2003 11:46 AM
To: STIC-Biotech/ChemLib
Subject: RUSH reissue litigation search US 4,981,784 (09/773,041)

Please RUSH search reissue litigation search for US Patent 4,981,784 (for US app. No. 09/773,041).

Thanks,

Mike Pak

Michael Pak
USPTO
Art Unit 1646
CM1; Rm. 10E13
703-305-7038

Searcher: _____
Phone: _____
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Date Picked Up: 11/10
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Clerical: _____
Online time: _____


TYPE OF SEARCH:
NA Sequences: _____
AA Sequences: _____
Structures: _____
Bibliographic: _____
Litigation: _____
Full text: _____
Patent Family: _____
Other: _____


VENDOR/COST (where applic.)
STN: _____
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Questel/Orbit: _____
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Lexis/Nexis: _____
Sequence Sys.: _____
WWW/Internet: _____
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
4,981,784 or 4981784  

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Source: [Legal](#) > [Area of Law - By Topic](#) > [Patent Law](#) > [Patents](#) > [U.S. Patents](#) > [Utility Patents](#) 
Terms: **patno is 4,981,784** ([Edit Search](#))

276536 (07) 4981784 January 1, 1991

UNITED STATES PATENT AND TRADEMARK OFFICE GRANTED PATENT

4981784

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[Link to Claims Section](#)

January 1, 1991

Retinoic acid receptor method

REEXAM-LITIGATE:

NOTICE OF LITIGATION

NOTICE OF LITIGATION Ligand Pharmaceuticals, Inc., et al v. La Jolla Cancer Research Foundation, et al, Filed Dec. 10, 1993, D.C. S.D. California, Doc. No. 93-1895IEG (CM)

REISSUE: Reissue Application filed Jan. 31, 2001 (O.G. Dec. 18, 2001) Ex. Gp.: 2736; Re. S.N. 09/773,041, (O.G. December 18, 2001)

INVENTOR: Evans, Ronald M. - La Jolla, California, United States (US); Ong, Estelita - San Diego, California, United States (US); Segui, Prudimar S. - San Diego, California, United States (US); Thompson, Catherine C. - La Jolla, California, United States (US); Umesono, Kazuhiko - San Diego, California, United States (US); Giguere, Vincent - Etobicoke, Canada (CA)

APPL-NO: 276536 (07)

FILED-DATE: November 30, 1988

GRANTED-DATE: January 1, 1991

ASSIGNEE-AT-ISSUE: The Salk Institute for Biological Studies, San Diego, California, United States (US), 02

ASSIGNEE-AFTER-ISSUE: January 23, 1989 - ASSIGNMENT OF ASSIGNORS INTEREST., SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE, SAN DIEGO, CA A CA NOT-FOR-PROFIT CORP., Reel and Frame Number: 005028/0315
December 28, 1993 - ASSIGNMENT OF ASSIGNORS INTEREST (SEE DOCUMENT FOR DETAILS)., SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE 10010 NORTH TORREY PINES ROAD LA JOLLA, CA 92037, Reel and Frame Number: 006811/0114

LEGAL-REP: McCubbrey, Bartels, Meyer & Ward, Fitch, Even, Tabin & Flannery

PUB-TYPE: January 1, 1991 - Utility Patent having no previously published pre-grant

publication (A)

PUB-COUNTRY: United States (US)

REL-DATA:

Continuation-in-part of Ser. No. 07/128331, December 2, 1987, ABANDONED

US-MAIN-CL: 435#6

US-ADDL-CL: 435#691, 435#694, 435#697, 435#701, 435#465

CL: 435

SEARCH-FLD: 435#6, 435#29, 435#41, 435#172.1, 435#172.3, 435#320, 435#691, 435#694, 435#697, 435#701, 935#6, 935#11, 935#9, 935#13, 935#23, 935#27, 935#70, 935#76, 935#111

IPC-MAIN-CL: 5C 12Q001#68

IPC ADDL CL: C 12P021#0, C 12N015#0

PRIM-EXMR: Schwartz, Richard A.

ASST-EXMR: Brown, Anne

NON-PATENT LITERATURE: Grun et al (1987) Nature 325:75-78.

CORE TERMS: receptor, domain, sub, acid, retinoic, hormone, protein, chimeric, cell, gene, sequence, ligand, thyroid, functional, binding, plasmid, hgr, reporter, glucocorticoid, ligand-binding, site, hybrid, region, amino, retinoid, promoter, assay, nucleotide, wild-type, bind

ENGLISH-ABST:

A novel retinoic acid receptor is disclosed. The novel receptor is encoded for by cDNA carried on plasmid pHRAR1, which has been deposited with the American Type Culture Collection for patent purposes. Chimeric receptor proteins are also disclosed. The chimera are constructed by exchanging functional domains between the glucocorticoid, the mineralocorticoid, the estrogen-related, the thyroid and the retinoic acid receptors. In addition, a novel method for identifying functional ligands for receptor proteins is disclosed. The method, which takes advantage of the modular structure of the hormone receptors and the idea that the functional domains may be interchangeable, replaces the DNA-binding domain of a putative novel receptor with the DNA-binding domain of a known receptor such as the glucocorticoid receptor. The resulting chimeric construction, when expressed in cells, produces a hybrid receptor whose activation of a ligand-(e.g., glucocorticoid) inducible promoter is dependent on the presence of the new ligand. The novel method is illustrated in part by showing that the ligand for the new receptor protein is the retinoid, retinoic acid.

NO-OF-CLAIMS: 11

EXMPL-CLAIM: 1

NO-DRWNG-PP: 13

GOVT-INTEREST:



STIC Search Report

Biotech-Chem Library

STIC Database Tracking Number: 107815

TO: Michael Pak
Location: CM1/10E13
Art Unit: 1646
Monday, November 10, 2003
Case Serial Number: 09773041

From: Paul Schulwitz
Location: Biotech-Chem Library
CM1-6B06
Phone: 305-1954

paul.schulwitz@uspto.gov

Search Notes

Examiner Pak,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Paul Schulwitz
Technical Information Specialist
STIC Biotech/Chem Library
(703)305-1954



?prt full legalall max

1/1 PLUSPAT - (C) QUESTEL-ORBIT
PN - US4981784 A 19910101 [US4981784]
TI - (A) Retinoic acid receptor method
PA - (A) SALK INST FOR BIOLOGICAL STUDI (US)
PAO - The Salk Institute for Biological Studies, San Diego CA [US]
IN - (A) EVANS RONALD M (US); ONG ESTELITA (US); SEGUI PRUDIMAR S (US);
THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US); GIGUERE VINCENT
(CA)
AP - US27653688 19881130 [1988US-0276536]
FD - C.I.P. of US128331 19871202 [1987US-0128331] (Abandoned)
PR - US12833187 19871202 [1987US-0128331]
- US27653688 19881130 [1988US-0276536]
IC - (A) C12N-015/00 C12P-021/00 C12Q-001/68
EC - C07K-014/705G
- C12Q-001/68P
ICO - M07K-203/00
- M07K-207/00
- M07K-211/00

Continue: Y / N

?y

PCL - ORIGINAL (O) : 435006000; CROSS-REFERENCE (X) : 435069100 435069400
435069700 435070100 435465000
DT - Corresponding document
CT - Grun et al (1987) Nature 325:75-78.
STG - (A) United States patent
AB - A novel retinoic acid receptor is disclosed. The novel receptor is
encoded for by cDNA carried on plasmid pHRAR1, which has been
deposited with the American Type Culture Collection for patent
purposes. Chimeric receptor proteins are also disclosed. The chimera
are constructed by exchanging functional domains between the
glucocorticoid, the mineralocorticoid, the estrogen-related, the
thyroid and the retinoic acid receptors. In addition, a novel method
for identifying functional ligands for receptor proteins is disclosed.
The method, which takes advantage of the modular structure of the
hormone receptors and the idea that the functional domains may be
interchangeable, replaces the DNA-binding domain of a putative novel
receptor with the DNA-binding domain of a known receptor such as the
glucocorticoid receptor. The resulting chimeric construction, when

Continue: Y / N

?y

expressed in cells, produces a hybrid receptor whose activation of a
ligand-(e.g., glucocorticoid) inducible promoter is dependent on the
presence of the new ligand. The novel method is illustrated in part by
showing that the ligand for the new receptor protein is the retinoid,
retinoic acid.

1/1 LGST - (C) EPO
PN - US4981784 A 19910101 [US4981784]
AP - US27653688 19881130 [1988US-0276536]

ACT - 19890123 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE, SAN DI; EFFECTIVE
DATE: 19881202
- 19890123 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: EVANS, RONALD M.; EFFECTIVE DATE: 19881202
- 19890123 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST

Continue: Y / N

?y

OWNER: ONG, ESTELITA S.; EFFECTIVE DATE: 19881202
- 19890123 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: SEGUI, PRUDIMAR S.; EFFECTIVE DATE: 19881202
- 19890123 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: THOMPSON, CATHERINE C; EFFECTIVE DATE: 19881202
- 19931228 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE 10010 N; EFFECTIVE
DATE: 19881209
- 19931228 US/AS02-A
ASSIGNMENT OF ASSIGNOR'S INTEREST
OWNER: GIGUERE, VINCENT; EFFECTIVE DATE: 19881209
- 20011218 US/RF-A
REISSUE APPLICATION FILED
EFFECTIVE DATE: 20010131
UP - 2003-22

Continue: Y / N

?y

1/1 CRXX - (C) CLAIMS/RRX
AN - 2107730
PN - 4,981,784 A 19910101 [US4981784]
PA - Salk Institute for Biological Studies
PT - C (Chemical)
ACT - 19931228 REASSIGNED
ASSIGNMENT OF ASSIGNOR'S INTEREST

Assignor: GIGUERE, VINCENT DATE SIGNED: 12/09/1988

Assignee: SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE 10010 NORTH
TORREY PINES ROAD LA JOLLA, CA 92037

Reel 006811/Frame 0114

Contact: PRETTY, SCHROEDER, BRUEGGEMANN & CLARK STEPHEN E. REITER 444
SOUTH FLOWER STREET SUITE 2000 LOS ANGELES, CA 90071

Continue: Y / N

?y

- 20010131 REISSUE REQUESTED
 ISSUE DATE OF O.G.: 20011218
 REISSUE REQUEST NUMBER: 09/773041
 EXAMINATION GROUP RESPONSIBLE FOR REISSUEPROCESS: 2736

Reissue Patent Number:

UP - 1999-00
 UACT- 2001-12-18

1/1 LITA - (C) Thomson Derwent
 AN - P1994-01-18
 FS - PATENT (P)
 PN - US4981784 19910101 (Utility)
 TI - Retinoic Acid Receptor Method (Genetic Engineering)
 PCL - 435000000
 IN - Evans Ronald M - La Jolla CA;

Continue: Y / N

?y

- Giguere Vincent - Etobicoke CANADA;
 - Ong Estelita - San Diego CA;
 - Segui Prudimar S - San Diego CA;
 - Thompson Catherine C - La Jolla CA;
 - Umesono Kazuhiko - San Diego CA
 PA - Salk Institute for Biological Studies
 IT - Chemistry: Molecular Biology & Microbiology
 PF - Ligand Pharmaceuticals Inc; Allergan Ligand
 DF - La Jolla Cancer Research Foundation;
 - Selectra Pharmaceuticals Inc;
 - SRI Intl
 CT - CA, Southern Dist.
 DN - 93-1895IEG(CM)
 FD - 1993-12-10
 ACT - A complaint was filed.
 OPN - US5071518
 - US5071773
 - US5171671

Continue: Y / N

?y

UP - 1994-01

1/39/1

DIALOG(R) File 345:Inpadoc/Fam.& Legal Stat
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8788796

Basic Patent (No,Kind,Date): WO 8905355 A1 19890615 <No. of Patents: 032>

Patent Family:

Patent No	Kind	Date	Applic No	Kind	Date
AT 124721	E	19950715	EP 88311477	A	19881202
AT 182685	E	19990815	EP 92121951	A	19881202
AU 8928188	A1	19890705	AU 8928188	A	19881201
AU 9230268	A1	19930422	AU 9230268	A	19921217
AU 628312	B2	19920917	AU 8928188	A	19881201
AU 665039	B2	19951214	AU 9230268	A	19921217
CA 1341422	A1	20030225	CA 584893	A	19881202
DE 3854120	C0	19950810	DE 3854120	A	19881202
DE 3856354	C0	19990902	DE 3856354	A	19881202
DE 3854120	T2	19960111	DE 3854120	A	19881202
DE 3856354	T2	19991216	DE 3856354	A	19881202
DK 9001368	A	19900601	DK 901368	A	19900601
DK 9001368	A0	19900601	DK 901368	A	19900601
EP 540065	A1	19930505	EP 92121951	A	19881202
EP 325849	A2	19890802	EP 88311477	A	19881202
EP 325849	A3	19911016	EP 88311477	A	19881202
EP 325849	B1	19950705	EP 88311477	A	19881202
EP 540065	B1	19990728	EP 92121951	A	19881202
ES 2073408	T3	19950816	ES 88311477	EP	19881202
IE 9668590	B	19960626	IE 883621	A	19881202
JP 10279599	A2	19981020	JP 97299300	A	19970925
JP 10295385	A2	19981110	JP 97299299	A	19970925
JP 3006716	B2	20000207	JP 88500616	A	19881201
JP 3503597	T2	19910815	JP 89500616	A	19881201
KR 9709951	B1	19970619	KR 8971441	A	19890801
US 4981784	A	19910101	US 276536	A	19881130
US 5171671	A	19921215	US 546256	A	19900806
US 5274077	A	19931228	US 975777	A	19921113
US 5548063	A	19960820	US 179912	A	19940111
US 5571692	A	19961105	US 168686	A	19931216
US 5599904	A	19970204	US 845857	A	19920303
WO 8905355	A1	19890615	WO 88US4284	A	19881201 (BASIC)

Priority Data (No,Kind,Date):

US 128331 A 19871202
 US 276536 A 19881130
 WO 88US4284 A 19881201
 US 276536 A 19871130
 EP 88311477 A3 19881202
 WO 88US4284 W 19881201
 US 128331 B2 19871202
 US 276536 A3 19881130
 US 546256 A3 19900806
 US 179912 A 19940111
 US 845857 A1 19920303
 US 546570 B3 19900806
 US 168686 A 19931216
 US 845857 A 19920303

PATENT FAMILY:

AUSTRIA (AT)

Patent (No,Kind,Date): AT 124721 E 19950715

RETINOESAEURE-REZEPTOR-KOMPOSITION UND VERFAHREN ZUR LIGAND-IDENTIFIZIERUNG. (German)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)

Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A 19881130

Applic (No,Kind,Date): EP 883114/77 A 19881202

Addnl Info: 00325849 19950705

IPC: * C12N-015/12; C12P-021/02; C12N-015/62; C12N-005/10; C12Q-001/68

CA Abstract No: * 114(13)116377E

Derwent WPI Acc No: * C 89-192701

Language of Document: German

Patent (No,Kind,Date): AT 182685 E 19990815

VERFAHREN ZUR IDENTIFIZIERUNG VON LIGANDEN FUER RETINSAEUREREZEPTOREN (German)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)

Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A 19881130

Applic (No,Kind,Date): EP 92121951 A 19881202

Addnl Info: 540065 19990728

IPC: * G01N-033/68; G01N-033/74; C12N-015/12; C07K-014/705

CA Abstract No: * 114(13)116377E

Derwent WPI Acc No: * C 89-192701

Language of Document: German

AUSTRIA (AT)

Legal Status (No,Type,Date,Code,Text):

AT 124721	R	19950715	AT REF	CORRESPONDS TO EP-PATENT (ENTSPRICHT EP-PATENT)
				EP 325849 P 19950705
AT 124721	R	19960115	AT UEP	PUBLICATION OF TRANSLATION OF EUROPEAN PATENT SPECIFICATION (UEBERSETZUNG DER EUROPÄISCHEN PATENTSCHRIFT AUSGEGEBEN)
AT 124721	R	20000915	AT REN	CEASED DUE TO NON-PAYMENT OF THE ANNUAL FEE (ERLOSCHEN INFOLGE NICHTZ. D. JAHRESGEB.)
AT 182685	R	19990815	AT REF	CORRESPONDS TO EP-PATENT (ENTSPRICHT EP-PATENT)
				EP 540065 P 19990728
AT 182685	R	20000115	AT RER	CEASED AS TO PARAGRAPH 5 LIT. 3 LAW INTRODUCING PATENT TREATIES (ERLOSCHEN GEM. PAR. 5 ABS. 3 PATVEG.)

AUSTRALIA (AU)

Patent (No,Kind,Date): AU 8928188 A1 19890705

RETINOIC ACID RECEPTOR COMPOSITION AND METHOD (English)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI

Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA

SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE CAROLINE
Priority (No,Kind,Date): WO 88US4284 A 19881201; US 128331 A
19871202; US 276536 A 19881130
Applic (No,Kind,Date): AU 8928188 A 19881201
IPC: * C12P-021/02; C12P-019/34; C12P-015/00; C07H-015/12; C12Q-001/68
; C12N-005/00; C12N-001/00; C07K-013/00
Language of Document: English
Patent (No,Kind,Date): AU 9230268 A1 19930422
CHIMERIC RECEPTORS AND METHODS FOR IDENTIFICATION (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI
Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA
SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE CAROLINE
Priority (No,Kind,Date): US 128331 A 19871202
Applic (No,Kind,Date): AU 9230268 A 19921217
IPC: * C12N-015/12; C07K-013/00
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): AU 628312 B2 19920917
RETINOIC ACID RECEPTOR COMPOSITION AND METHOD (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI
Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA
SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE CAROLINE
Priority (No,Kind,Date): WO 88US4284 A 19881201; US 128331 A
19871202; US 276536 A 19881130
Applic (No,Kind,Date): AU 8928188 A 19881201
IPC: * C12P-021/02; C12P-019/34; C12P-015/00; C12Q-001/68; C12N-005/00
; C12N-001/00; C07K-013/00; C12N-015/12; C12N-005/10; G01N-033/68;
C07K-015/12
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): AU 665039 B2 19951214
CHIMERIC RECEPTORS AND METHODS FOR IDENTIFICATION (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI
Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA
SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE CAROLINE
Priority (No,Kind,Date): US 128331 A 19871202
Applic (No,Kind,Date): AU 9230268 A 19921217
IPC: * C12N-015/12; C07K-013/00
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English

CANADA (CA)

Patent (No,Kind,Date): CA 1341422 A1 20030225
RETINOIC ACID RECEPTOR COMPOSITION AND METHOD (English; French)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK (US); THOMPSON CATHERINE
CAROLINE (US); UMESONO KAZUHIKO (US); GIGUERE VINCENT (US); SEGUI
PRUDIMAR SERRANO (US); ONG ESTELITA SEBASTIAN (US)
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19871130

Applic (No,Kind,Date): CA 584893 A 19881202
IPC: * C12N-015/62; C12N-005/10; C12N-015/12; G01N-033/566;
C07K-014/705
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English

GERMANY (DE)

Patent (No,Kind,Date): DE 3854120 C0 19950810
RETINOESAEURE-REZEPTOR-KOMPOSITION UND VERFAHREN ZUR
LIGAND-IDENTIFIZIERUNG. (German)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): DE 3854120 A 19881202
IPC: * C12N-015/12; C12P-021/02; C12N-015/62; C12N-005/10; C12Q-001/68
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: German

Patent (No,Kind,Date): DE 3856354 C0 19990902
VERFAHREN ZUR IDENTIFIZIERUNG VON LIGANDEN FUER RETINSAEUREREZEPTOREN
(German)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): DE 3856354 A 19881202
IPC: * G01N-033/68; G01N-033/74; C12N-015/12; C07K-014/705
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: German

Patent (No,Kind,Date): DE 3854120 T2 19960111
RETINOESAEURE-REZEPTOR-KOMPOSITION UND VERFAHREN ZUR
LIGAND-IDENTIFIZIERUNG. (German)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): DE 3854120 A 19881202
IPC: * C12Q-001/68; C12N-005/10; C12N-015/62; C12P-021/02; C12N-015/12
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: German

Patent (No,Kind,Date): DE 3856354 T2 19991216
VERFAHREN ZUR IDENTIFIZIERUNG VON LIGANDEN FUER RETINSAEUREREZEPTOREN
(German)
Patent Assignee: SALK INST FOR BIOLOG STUDIES L (US)
Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130
Applic (No,Kind,Date): DE 3856354 A 19881202
IPC: * G01N-033/68; G01N-033/74; C12N-015/12; C07K-014/705
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: German

GERMANY (DE)

Legal Status (No,Type,Date,Code,Text):

DE 3854120	P	19950810	DE REF	CORRESPONDS TO (ENTSPRICHT)
			EP 325849 P 19950810	
DE 3854120	P	19960111	DE 8373	TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED (UEBERSETZUNG DER PATENTSCHRIFT DES EUROPÄISCHEN PATENTES IST EINGEGANGEN UND VERÖFFENTLICHT WORDEN)
DE 3854120	P	19960808	DE 8364	NO OPPOSITION DURING TERM OF OPPOSITION (EINSRUCHSFRIST ABGELAUFEN OHNE DASS EINSRUCH ERHOHEN WURDE)
DE 3854120	P	20021107	DE 8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE (WEGEN NICHTZ. D. JAHRESGEB. ERLOSCHEN)
DE 3856354	P	19990902	DE REF	CORRESPONDS TO (ENTSPRICHT)
			EP 540065 P 19990902	
DE 3856354	P	19991216	DE 8373	TRANSLATION OF PATENT DOCUMENT OF EUROPEAN PATENT WAS RECEIVED AND HAS BEEN PUBLISHED (UEBERSETZUNG DER PATENTSCHRIFT DES EUROPÄISCHEN PATENTES IST EINGEGANGEN UND VERÖFFENTLICHT WORDEN)
DE 3856354	P	20021107	DE 8339	CEASED/NON-PAYMENT OF THE ANNUAL FEE (WEGEN NICHTZ. D. JAHRESGEB. ERLOSCHEN)

DENMARK (DK)

Patent (No,Kind,Date): DK 9001368 A 19900601
RETINSYRERECEPTORMIDDEL OG FREMGANGSMAADE (Danish)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK; THOMPSON CATHERINE CAROLINE;
GIGUERE VINCENT; ONG ESTELITA SEBASTIAN; SEGUI PRUDIMAR SERRANO;
UMESONO KAZUHIKO
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130; WO 88US4284 A 19881201
Applic (No,Kind,Date): DK 901368 A 19900601
IPC: * C12N-015/12; C07K-013/00; C12N-015/85
Derwent WPI Acc No: * C 89-192701
Language of Document: Danish
Patent (No,Kind,Date): DK 9001368 A0 19900601
RETINSYRERECEPTORMIDDEL OG FREMGANGSMAADE (Danish)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK; THOMPSON CATHERINE CAROLINE;
GIGUERE VINCENT; ONG ESTELITA SEBASTIAN; SEGUI PRUDIMAR SERRANO;
UMESONO KAZUHIKO
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130; WO 88US4284 A 19881201

Applic (No,Kind,Date): DK 901368 A 19900601
 IPC: * C12N-015/12; C07K-013/00; C12N-015/85
 Derwent WPI Acc No: * C 89-192701
 Language of Document: Danish
 DENMARK (DK)
 Legal Status (No,Type,Date,Code,Text):
 DK 901368 A 19871202 DK AAA PRIORITY OF THE APPLICATION
 (PATENT APPLICATION) (PRIORITY OF THE APPL.
 (PATENT APPL.))
 US 128331 A 19871202
 DK 901368 A 19881130 DK AAA PRIORITY OF THE APPLICATION
 (PATENT APPLICATION) (PRIORITY OF THE APPL.
 (PATENT APPL.))
 US 276536 A 19881130
 DK 901368 A 19881201 DK AAA PRIORITY OF THE APPLICATION
 (PATENT APPLICATION) (PRIORITY OF THE APPL.
 (PATENT APPL.))
 WO 88US4284 A 19881201
 DK 901368 A 19900601 DK A PUBLISHED APPLICATION
 DK 901368 A 19900601 DK AEA DATA OF DOMESTIC APPLICATION
 (DATA OF DOMESTIC APPL.)
 DK 901368 A 19900601
 DK 901368 A 20000731 DK AHB APPLICATION SHELVED DUE TO
 NON-PAYMENT (ANSOEGNING HENLAGT P.G.A.
 MANGLENDE BETALING)

EUROPEAN PATENT OFFICE (EP)

Patent (No,Kind,Date): EP 540065 A1 19930505
 RETINOIC ACID RECEPTOR COMPOSITION (English; French; German)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
 ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
 KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): EP 92121951 A 19881202
 Designated States: (National) AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;
 LU; NL; SE
 IPC: * C12N-015/12; C12N-015/62; G01N-033/68; G01N-033/74; C12N-005/10
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: English
 Patent (No,Kind,Date): EP 325849 A2 19890802
 RETINOIC ACID RECEPTOR COMPOSITION AND METHOD FOR IDENTIFYING LIGANDS
 (English; French; German)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
 ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
 KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): EP 88311477 A 19881202
 Designated States: (National) AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;
 LU; NL; SE
 IPC: * C12N-015/00; C07H-021/04; C12P-021/02; C12N-005/00
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: English

Patent (No,Kind,Date): EP 325849 A3 19911016
 RETINOIC ACID RECEPTOR COMPOSITION AND METHOD FOR IDENTIFYING LIGANDS
 (English; French; German)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA
 SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
 CATHERINE CAROLINE
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): EP 88311477 A 19881202
 Designated States: (National) AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;
 LU; NL; SE
 IPC: * C12N-015/00; C07H-021/04; C12P-021/02; C12N-005/00
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: English

Patent (No,Kind,Date): EP 325849 B1 19950705
 RETINOIC ACID RECEPTOR COMPOSITION AND METHOD FOR IDENTIFYING LIGANDS.
 (English; French; German)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
 ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
 KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): EP 88311477 A 19881202
 Designated States: (National) AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;
 LU; NL; SE
 IPC: * C12N-015/12; C12P-021/02; C12N-015/62; C12N-005/10; C12Q-001/68
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: English

Patent (No,Kind,Date): EP 540065 B1 19990728
 METHOD FOR IDENTIFYING LIGANDS FOR RETINOIC ACID RECEPTORS (English;
 French; German)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
 ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
 KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
 Priority (No,Kind,Date): EP 88311477 A3 19881202; US 128331 A
 19871202; US 276536 A 19881130
 Applic (No,Kind,Date): EP 92121951 A 19881202
 Designated States: (National) AT; BE; CH; DE; ES; FR; GB; GR; IT; LI;
 LU; NL; SE
 IPC: * G01N-033/68; G01N-033/74; C12N-015/12; C07K-014/705
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: English

EUROPEAN PATENT OFFICE (EP)

Legal Status (No,Type,Date,Code,Text):

EP 325849	P	19871202	EP AA	PRIORITY (PATENT
			APPLICATION)	(PRIORITAET (PATENTANMELDUNG))
		US 128331	A	19871202
EP 325849	P	19881130	EP AA	PRIORITY (PATENT
			APPLICATION)	(PRIORITAET (PATENTANMELDUNG))

US 276536 A 19881130
 EP 325849 P 19881202 EP AE EP-APPLICATION
 (EUROPAEISCHE ANMELDUNG)
 EP 88311477 A 19881202
 EP 325849 P 19890802 EP AK DESIGNATED CONTRACTING
 STATES IN AN APPLICATION WITHOUT SEARCH
 REPORT (IN EINER ANMELDUNG OHNE
 RECHERCHENBERICHT BENANNT VERTRAGSSTAATEN)

AT BE CH DE ES FR GB GR IT LI LU NL SE
 EP 325849 P 19890802 EP A2 PUBLICATION OF APPLICATION
 WITHOUT SEARCH REPORT (VEROEFFENTLICHUNG DER
 ANMELDUNG OHNE RECHERCHENBERICHT)
 EP 325849 P 19911016 EP AK DESIGNATED CONTRACTING
 STATES IN A SEARCH REPORT (IN EINEM
 RECHERCHENBERICHT BENANNT VERTRAGSSTAATEN)

AT BE CH DE ES FR GB GR IT LI LU NL SE
 EP 325849 P 19911016 EP A3 SEPARATE PUBLICATION OF THE
 SEARCH REPORT (ART. 93) (GESONDERTE
 VEROEFFENTLICHUNG DES RECHERCHENBERICHTS
 (ART. 93))
 EP 325849 P 19920527 EP 17P REQUEST FOR EXAMINATION
 FILED (PRUEFUNGSANTRAG GESTELLT)
 920326
 EP 325849 P 19920819 EP 17Q FIRST EXAMINATION REPORT
 (ERSTER PRUEFUNGSBESCHIED)
 920706
 EP 325849 P 19930505 EP AH DIVISIONAL APPLICATION (ART.
 76) IN: (TEILANMELDUNG (ART. 76) IN:)
 EP 540065 P
 EP 325849 P 19930526 EP RIN1 INVENTOR (CORRECTION)
 (ERFINDER (KORR.))
 EVANS, RONALD MARK, ; GIGUERE, VINCENT, ;
 ONG, ESTELITA SEBASTIAN, ; SEGUI, PRUDIMAR
 SERRANO ; UMESONO, KAZUHIKO, ; THOMPSON,
 CATHERINE CAROLINE
 EP 325849 P 19930609 EP RIN1 INVENTOR (CORRECTION)
 (ERFINDER (KORR.))
 EVANS, RONALD MARK, ; GIGUERE, VINCENT, ;
 ONG, ESTELITA SEBASTIAN, ; SEGUI, PRUDIMAR
 SERRANO ; UMESONO, KAZUHIKO, ; THOMPSON,
 CATHERINE CAROLINE
 EP 325849 P 19950705 EP AK DESIGNATED CONTRACTING
 STATES MENTIONED IN A PATENT SPECIFICATION
 (IN EINER PATENTSCHRIFT ANGEFUEHRTE BENANNT
 VERTRAGSSTAATEN)
 AT BE CH DE ES FR GB GR IT LI LU NL SE
 EP 325849 P 19950705 EP B1 PATENT SPECIFICATION
 (PATENTSCHRIFT)
 EP 325849 P 19950705 EP REF IN AUSTRIA REGISTERED AS:
 (IN AT EINGETRAGEN ALS:)
 AT 124721 R 19950715
 EP 325849 P 19950705 EP XX MISCELLANEOUS: (DIVERSES:)

TEILANMELDUNG 92121951.5 EINGEREICHT AM

02/12/88.

EP 325849 P 19950713 EP ET FR: TRANSLATION FILED (FR: TRADUCTION A ETE REMISE)

EP 325849 P 19950717 EP IT IT: TRANSLATION FOR AN EP PATENT FILED (IT: DEPOSITO TRADUZIONE DI BREVETTO EUROPEO)

EP 325849 P 19950810 EP REF CORRESPONDS TO: (ENTSPRICHT)

DE 3854120 P 19950810

EP 325849 P 19950816 ES FG2A/REG DEFINITIVE PROTECTION (PROTECCION DEFINITIVA)

2073408T3

EP 325849 P 19960703 EP 26N NO OPPOSITION FILED (KEIN EINSPRUCH EINGELEGT)

EP 325849 P 19990728 EP AH DIVISIONAL APPLICATION (ART. 76) IN: (TEILANMELDUNG (ART. 76) IN:)

EP 540065 P

EP 325849 P 20000630 EP BERE BE: LAPSED (BE: DECHU)

19991231 THE ;SALK INSTITUTE FOR BIOLOGICAL STUDIES

EP 325849 P 20000814 EP EUG SE: EUROPEAN PATENT HAS LAPSED (SE: EUROPEISKT PATENT HAR UPPHOERT ATT GAELLA)

88311477.9

EP 325849 P 20000901 EP NLV4 NL: LAPSED OR ANULLED DUE TO NON-PAYMENT OF THE ANNUAL FEE (NL: VERVALLEN WEGENS NIET BETALEN VAN EEN JAARCIJNS)

20000701

EP 325849 P 20020101 GB IF02/REG EUROPEAN PATENT IN FORCE AS OF 2002-01-01

EP 325849 P 20020724 EP GBPC GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE

20011202

EP 325849 P 20020815 CH PL/REG PATENT CEASED (LOESCHUNG/RADIATION/RADIAZION)

EP 325849 P 20020927 FR ST/REG LAPSED (CONSTATATION DE DECHEANCES)

EP 540065 P 19871202 EP AA PRIORITY (PATENT APPLICATION) (PRIORITAET (PATENTANMELDUNG))

US 128331 A 19871202

EP 540065 P 19881130 EP AA PRIORITY (PATENT APPLICATION) (PRIORITAET (PATENTANMELDUNG))

US 276536 A 19881130

EP 540065 P 19881202 EP AA DIVIDED OUT OF (AUSSCHEIDUNG AUS)

EP 88311477 A3 19881202

EP 540065 P 19881202 EP AE EP-APPLICATION (EUROPAEISCHE ANMELDUNG)

EP 92121951 A 19881202

EP 540065 P 19930505 EP AC DIVISIONAL APPLICATION (ART. 76) OF: (TEILANMELDUNG (ART. 76) AUS:)

EP 325849 P

EP 540065 P 19930505 EP AK DESIGNATED CONTRACTING STATES IN AN APPLICATION WITH SEARCH REPORT

(IN EINER ANMELDUNG BENANNT VERTRAGSSTAATEN)

AT BE CH DE ES FR GB GR IT LI LU NL SE
 EP 540065 P 19930505 EP A1 PUBLICATION OF APPLICATION
 WITH SEARCH REPORT (VEROEFFENTLICHUNG DER
 ANMELDUNG MIT RECHERCHENBERICHT)
 EP 540065 P 19930526 EP RIN1 INVENTOR (CORRECTION) (
 ERFINDER (KORR.))
 EVANS, RONALD MARK ; GIGUERE, VINCENT ; ONG,
 ESTELITA SEBASTIAN ; SEGUI, PRUDIMAR SERRANO
 ; UMESONO, KAZUHIKO ; UMESONO, KAZUHIKO
 EP 540065 P 19930623 EP RIN1 INVENTOR (CORRECTION)
 (ERFINDER (KORR.))
 EVANS, RONALD MARK ; GIGUERE, VINCENT ; ONG,
 ESTELITA SEBASTIAN ; SEGUI, PRUDIMAR SERRANO
 ; UMESONO, KAZUHIKO ; UMESONO, KAZUHIKO
 EP 540065 P 19930707 EP RIN1 INVENTOR (CORRECTION)
 (ERFINDER (KORR.))
 EVANS, RONALD MARK ; GIGUERE, VINCENT ; ONG,
 ESTELITA SEBASTIAN ; SEGUI, PRUDIMAR SERRANO
 ; UMESONO, KAZUHIKO ; UMESONO, KAZUHIKO
 EP 540065 P 19930721 EP RIN1 INVENTOR (CORRECTION)
 (ERFINDER (KORR.))
 EVANS, RONALD MARK ; GIGUERE, VINCENT ; ONG,
 ESTELITA SEBASTIAN ; SEGUI, PRUDIMAR SERRANO
 ; UMESONO, KAZUHIKO ; THOMPSON, CATHERINE
 CAROLINE
 EP 540065 P 19930818 EP 1/P REQUEST FOR EXAMINATION
 FILED (PRUEFUNGSANTRAG GESTELLT)
 930621
 EP 540065 P 19960320 EP 17Q FIRST EXAMINATION REPORT
 (ERSTER PRUEFUNGSBESCHIED)
 960205
 EP 540065 P 19990728 EP AC DIVISIONAL APPLICATION (ART.
 76) OF: (TEILANMELDUNG (ART. 76) AUS:)
 EP 325849 P
 EP 540065 P 19990728 EP AK DESIGNATED CONTRACTING
 STATES MENTIONED IN A PATENT SPECIFICATION:
 (IN EINER PATENTSCHRIFT ANGEFUEHRTE BENANNT
 VERTRAGSSTAATEN)
 AT BE CH DE ES FR GB GR IT LI LU NL SE
 EP 540065 P 19990728 EP B1 PATENT SPECIFICATION
 (PATENTSCHRIFT)
 EP 540065 P 19990728 EP REF IN AUSTRIA REGISTERED AS:
 (IN AT EINGETRAGEN ALS:)
 AT 182685 R 19990815
 EP 540065 P 19990730 CH EP/REG ENTRY IN THE NATIONAL PHASE
 (EINTRITT IN DIE NATIONALE PHASE)
 EP 540065 P 19990902 EP REF CORRESPONDS TO:
 (ENTSPRICHT)
 DE 3856354 P 19990902
 EP 540065 P 19991001 EP ET FR: TRANSLATION FILED (FR:
 TRADUCTION A ETE REMISE)
 EP 540065 P 20000103 EP NLV1 NL: LAPSED OR ANNULLED DUE TO
 FAILURE TO FULFILL THE REQUIREMENTS OF ART.
 29P AND 29M OF THE PATENTS ACT; NO LEGAL
 EFFECT FROM THE DATE OF (NL: WIRKUNG IN NL

NICHT EINGETRETEN (ART. 29P UND 29M NL
PATG.))

EP 540065 P 20000131 CH PL/REG PATENT CEASED
(MOESCHUNG/RADIATION/RADIAZION)

EP 540065 P 20000614 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20000614 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20000621 EP 26 OPPOSITION FILED (EINSPRUCH
EINGELEGT)
20000425 SMITHKLINE BEECHAM PLC

EP 540065 P 20001213 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20001213 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20001213 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20001213 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20001213 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20001227 EP R25 LAPSED AS TO RULE 92 1 P
(CORRECTION) (ERLOSCHEN GEM. REGEL 92 1 P
(KORR.))
AT 19990728

EP 540065 P 20001227 EP R25 LAPSED AS TO RULE 92 1 P
(CORRECTION) (ERLOSCHEN GEM. REGEL 92 1 P
(KORR.))
AT 19990728

EP 540065 P 20001227 EP R25 LAPSED AS TO RULE 92 1 P
(CORRECTION) (ERLOSCHEN GEM. REGEL 92 1 P
(KORR.))
AT 19990728

EP 540065 P 20001227 EP R25 LAPSED AS TO RULE 92 1 P
(CORRECTION) (ERLOSCHEN GEM. REGEL 92 1 P
(KORR.))
AT 19990728

EP 540065 P 20010606 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20010606 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20010606 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20010606 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20010606 EP 25 LAPSED AS TO RULE 92 1 P
(ERLOSCHEN GEM. REGEL 92 1 P)
AT 19990728

EP 540065 P 20020101 GB IF02/REG EUROPEAN PATENT IN FORCE AS

OF 2002-01-01

EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020605	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020619	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20020724	EP GBPC	GB: EUROPEAN PATENT CEASED THROUGH NON-PAYMENT OF RENEWAL FEE 20011202
EP 540065	P	20020927	FR ST/REG	LAPSED (CONSTATATION DE DECHUFANCES)
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728

EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030102	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030205	EP RIC2	CLASSIFICATION (CORRECTION) (KLASSIFIKATION (KORR.)) 7G 01N 33/68 A, 7G 01N 33/74 B, 7C 12N 15/12 B, 7C 07K 14/705 B
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030212	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030226	EP RIC2	CLASSIFICATION (CORRECTION) (KLASSIFIKATION (KORR.)) 7G 01N 33/68 A, 7G 01N 33/74 B, 7C 12N 15/12 B, 7C 07K 14/705 B
EP 540065	P	20030723	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) AT 19990728
EP 540065	P	20030723	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) BE 19990728
EP 540065	P	20030723	EP 25	LAPSED IN A CONTRACTING STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT) CH 19990728
EP 540065	P	20030723	EP 25	LAPSED IN A CONTRACTING

			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			DE 20020702
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			ES 19990728
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			GB 20011202
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			GR 19990728
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			LI 19990728
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			NL 19990728
EP 540065	P	20030723 EP 25	LAPSED IN A CONTRACTING
			STATE (ERLOSCHEN IN EINEM VERTRAGSSTAAT)
			SE 19990728

SPAIN (ES)

Patent (No,Kind,Date): ES 2073408 T3 19950816
 COMPOSICION DE RECEPTOR DE ACIDO RETINOICO Y METODO PARA IDENTIFICAR
 LIGANDOS. (Spanish)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI
 Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG
 ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
 KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): ES 88311477 EP 19881202
 Addnl Info: 0325849 EP patent valid in AT
 IPC: * C12N-015/12; C12P-021/02; C12N-015/62; C12N-005/10; C12Q-001/68
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701
 Language of Document: Spanish

SPAIN (ES)

Legal Status (No,Type,Date,Code,Text):
 ES 2073408 P 19950816 ES FG2A DEFINITIVE PROTECTION
 (PROTECCION DEFINITIVA)
 325849

IRELAND (IE)

Patent (No,Kind,Date): IE 9668590 B 19960626
 RETINOIC ACID RECEPTOR COMPOSITION AND METHOD FOR IDENTIFYING LIGANDS
 (English)
 Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
 Author (Inventor): EVANS RONALD MARK; GIGUERE VINCENT; ONG ESTELITA
 SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO
 Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
 19881130
 Applic (No,Kind,Date): IE 883621 A 19881202
 IPC: * C12N-015/12; C12N-015/62; C12P-021/02; C12Q-001/68
 CA Abstract No: * 114(13)116377E
 Derwent WPI Acc No: * C 89-192701

Language of Document: English

IRELAND (IE)

Legal Status (No,Type,Date,Code,Text):

IE 68590 P 20000920 IE MM4A PATENT LAPSED

JAPAN (JP)

Patent (No,Kind,Date): JP 10279599 A2 19981020

CONFIGURATION OF RETINOIN RECEPTOR AND METHOD (English)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI

Author (Inventor): EVANS RONALD M; GIGUERE VINCENT; ONG ESTELITA
SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE C

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): JP 97299300 A 19970925

IPC: * C07K-014/705; C07K-014/72; C07K-019/00; C12N-005/10;
C12N-015/09; C12P-021/02; C12R-001-91

CA Abstract No: * 114(13)116377E

Derwent WPI Acc No: * C 89-192701

Language of Document: Japanese

Patent (No,Kind,Date): JP 10295385 A2 19981110

CONSTITUTION OF RETINOIN RECEPTOR, AND METHOD FOR IDENTIFICATION OF
FUNCTIONAL LIGAND TO RECEPTOR (English)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI

Author (Inventor): EVANS RONALD M; GIGUERE VINCENT; ONG ESTELITA
SEBASTIAN; SEGUI PRUDIMAR SERRANO; UMESONO KAZUHIKO; THOMPSON
CATHERINE C

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): JP 97299299 A 19970925

IPC: * C12N-015/09; C07K-014/705; C07K-014/72; C07K-019/00;
C12P-021/02; G01N-033/15; G01N-033/566; G01N-033/50; C12R-001-91

CA Abstract No: * 114(13)116377E

Derwent WPI Acc No: * C 89-192701

Language of Document: Japanese

Patent (No,Kind,Date): JP 3006716 B2 20000207

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI

Author (Inventor): EVANSU RONARUDO MAAKU; JIGYUURU UINSENTO; ONGU
ESUTERITA SEBASUCHAN; SEGYUI PURUDEIMAA SERRANO; UMESONO KAZUHIKO;
TONPUSON KYASARIN KYARORAIN

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130

Applic (No,Kind,Date): JP 88500616 A 19881201

IPC: * C12N-015/09; C07K-014/705; C12N-005/10; C12P-021/02;
C12R-001-91

Language of Document: Japanese

Patent (No,Kind,Date): JP 3503597 T2 19910815

Priority (No,Kind,Date): WO 88US4284 W 19881201; US 128331 A
19871202; US 276536 A 19881130

Applic (No,Kind,Date): JP 89500616 A 19881201

IPC: * C12N-015/12; C07K-015/06; C12P-021/02; C12R-001-91

CA Abstract No: * 114(13)116377E

Derwent WPI Acc No: * C 89-192701

Language of Document: Japanese

KOREA, REPUBLIC (KR)

Patent (No,Kind,Date): KR 9709951 B1 19970619
RETINOIC ACID RECEPTOR COMPOSITION AND METHOD (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CN); ONG
ESTELITA SEBASTIN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO
KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)
Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A
19881130; WO 88US4284 W 19881201
Applic (No,Kind,Date): KR 8971441 A 19890801
IPC: * C12N-015/00; C12P-021/02
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: Korean

UNITED STATES OF AMERICA (US)

Patent (No,Kind,Date): US 4981784 A 19910101
RETINOIC ACID RECEPTOR METHOD (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 128331 B2 19871202
Applic (No,Kind,Date): US 276536 A 19881130
National Class: * 435066000; 435069100; 435069400; 435069700;
435070100; 435172100; 435172300; 935009000; 935010000; 935013000;
935076000
IPC: * C12Q-001/68; C12P-021/00; C12N-015/00
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): US 5171671 A 19921215
RETINOIC ACID RECEPTOR COMPOSITION (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA S (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 276536 A3 19881130; US 128331 B2
19871202
Applic (No,Kind,Date): US 546256 A 19900806
Addnl Info: 4981784 Patented
National Class: * 435069100; 435069700; 435257300; 435320100;
530350000; 536027000
IPC: * C12N-015/12; C12N-015/62; C12N 015/63; C07K-013/00
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): US 5274077 A 19931228
RETINOIC ACID RECEPTOR COMPOSITION (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA S (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 546256 A3 19900806; US 276536 A3
19881130; US 128331 B2 19871202
Applic (No,Kind,Date): US 975777 A 19921113
Addnl Info: 5171671 19921215 Patented; 4981784 19910101 Patented
National Class: * 530350000; 530358000; 435069100; 435252300
IPC: * C07K-013/00; C12N-015/12

CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): US 5548063 A 19960820
RETINOIC ACID RECEPTOR ALPHA PROTEINS Retinoic acid receptor alpha
proteins (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA S (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 179912 A 19940111; US 845857 A1
19920303; US 546570 B3 19900806; US 276536 A3 19881130; US 128331
B2 19871202
Applic (No,Kind,Date): US 179912 A 19940111
Addnl Info: 4981784 Patented
National Class: * 530350000; 530324000; 435069100
IPC: * C07K-014/705
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): US 5571692 A 19961105
RETINOIC ACID RECEPTOR ALPHA , VECTORS AND CELLS COMPRISING THE SAME
DNA ENCODING Retinoic acid receptor alpha , vectors and cells
comprising the same DNA encoding (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA S (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 168686 A 19931216; US 845857 A1
19920303; US 546570 B3 19900806; US 276536 A3 19881130; US 128331
B2 19871202
Applic (No,Kind,Date): US 168686 A 19931216
Addnl Info: 4981784 Patented
National Class: * 435069100; 435240200; 435252300; 435254110;
435320100; 536023500
IPC: * C12N-015/12; C12N-015/63; C12N-005/10; C12N-001/21
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English
Patent (No,Kind,Date): US 5599904 A 19970204
CHIMERIC STEROID HORMONE SUPERFAMILY RECEPTOR PROTEINS (English)
Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)
Author (Inventor): EVANS RONALD M (US); ONG ESTELITA S (US); SEGUI
PRUDIMAR S (US); THOMPSON CATHERINE C (US); UMESONO KAZUHIKO (US);
GIGUERE VINCENT (CA)
Priority (No,Kind,Date): US 845857 A 19920303; US 546570 B3
19900806; US 276536 A3 19881130; US 128331 B2 19871202
Applic (No,Kind,Date): US 845857 A 19920303
Addnl Info: 4981784 Patented
National Class: * 530350000; 435069100; 435069700; 935036000
IPC: * C07K 019/00; C07K-014/705
CA Abstract No: * 114(13)116377E
Derwent WPI Acc No: * C 89-192701
Language of Document: English

UNITED STATES OF AMERICA (US)

Legal Status (No,Type,Date,Code,Text):

US 4981784	P	19871202 US AA	PRIORITY
		US 128331 B2	19871202
US 4981784	P	19881130 US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT))	
		US 276536 A	19881130
US 4981784	P	19890123 US AS02	ASSIGNMENT OF ASSIGNOR'S
		INTEREST	
		SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE,	
		SAN DIEGO, CA A CA NOT-FOR-PROFIT CO ; EVANS,	
		RONALD M. : 19881202; ONG, ESTELITA S. :	
		19881202; SEGUI, PRUDIMAR S. : 19881202;	
		THOMPSON, CATHERINE C : 19881202;	
US 4981784	P	19910101 US A	PATENT
US 4981784	P	19931228 US AS02	ASSIGNMENT OF ASSIGNOR'S
		INTEREST	
		SALK INSTITUTE FOR BIOLOGICAL STUDIES, THE	
		10010 NORTH TORREY PINES ROAD LA JOLL ;	
		GIGUERE, VINCENT : 19881209	
US 4981784	P	20011218 US RF	REISSUE APPLICATION FILED
		(REISSUE APPL. FILED)	
		20010131	
US 5171671	P	19871202 US AA	PRIORITY
		US 128331 B2	19871202
US 5171671	P	19881130 US AA	PRIORITY
		US 276536 A3	19881130
US 5171671	P	19900806 US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT))	
		US 546256 A	19900806
US 5171671	P	19921215 US A	PATENT
US 5171671	P	19940531 US DC	DISCLAIMER FILED
		931214	
US 5171671	P	19941101 US CC	CERTIFICATE OF CORRECTION
US 5171671	P	20010501 US RF	REISSUE APPLICATION FILED
		(REISSUE APPL. FILED)	
		20010131	
US 5274077	P	19871202 US AA	PRIORITY
		US 128331 B2	19871202
US 5274077	P	19881130 US AA	PRIORITY
		US 276536 A3	19881130
US 5274077	P	19900806 US AA	PRIORITY
		US 546256 A3	19900806
US 5274077	P	19921113 US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT))	
		US 975777 A	19921113
US 5274077	P	19931228 US A	PATENT
US 5274077	P	19940510 US DC	DISCLAIMER FILED
		940103	
US 5548063	P	19871202 US AA	PRIORITY
		US 128331 B2	19871202
US 5548063	P	19881130 US AA	PRIORITY
		US 276536 A3	19881130
US 5548063	P	19900806 US AA	PRIORITY
		US 546570 B3	19900806
US 5548063	P	19920303 US AA	PRIORITY
		US 845857 A1	19920303
US 5548063	P	19940111 US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT))	

		US 179912	A	19940111
US 5548063	P	19960820	US A	PATENT
US 5571692	P	19871202	US AA	PRIORITY
		US 128331	B2	19871202
US 5571692	P	19881130	US AA	PRIORITY
		US 276536	A3	19881130
US 5571692	P	19900806	US AA	PRIORITY
		US 546570	B3	19900806
US 5571692	P	19920303	US AA	PRIORITY
		US 845857	A1	19920303
US 5571692	P	19931216	US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT)		
		US 168686	A	19931216
US 5571692	P	19961105	US A	PATENT
US 5599904	P	19871202	US AA	PRIORITY
		US 128331	B2	19871202
US 5599904	P	19881130	US AA	PRIORITY
		US 276536	A3	19881130
US 5599904	P	19900806	US AA	PRIORITY
		US 546570	B3	19900806
US 5599904	P	19920303	US AE	APPLICATION DATA (PATENT)
		(APPL. DATA (PATENT)		
		US 845857	A	19920303
US 5599904	P	19970204	US A	PATENT

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Patent (No,Kind,Date): WO 8905355 A1 19890615

RETINOIC ACID RECEPTOR COMPOSITION AND METHOD (English)

Patent Assignee: SALK INST FOR BIOLOGICAL STUDI (US)

Author (Inventor): EVANS RONALD MARK (US); GIGUERE VINCENT (CA); ONG ESTELITA SEBASTIAN (US); SEGUI PRUDIMAR SERRANO (US); UMESONO KAZUHIKO (US); THOMPSON CATHERINE CAROLINE (US)

Priority (No,Kind,Date): US 128331 A 19871202; US 276536 A 19881130

Applic (No,Kind,Date): WO 88US4284 A 19881201

Designated States: (National) AU; DK; JP; KR

Filing Details: WO 13000 With international search report; Before expiration of time limit for amending the claims and to be republished in the event of the receipt of the amendments

IPC: * C12P-021/02; C12P-019/34; C12P-015/00; C07H-015/12; C12Q-001/68 ; C12N-005/00; C12N-001/00; C07K-013/00

CA Abstract No: ; 114(13:116377E

Derwent WPI Acc No: ; C 89-192701

Language of Document: English

WORLD INTELLECTUAL PROPERTY ORGANIZATION, PCT (WO)

Legal Status (No,Type,Date,Code,Text):

WO 8905355	P	19871202	WO AA	PRIORITY (PATENT)
		US 128331	A	19871202
WO 8905355	P	19881130	WO AA	PRIORITY (PATENT)
		US 276536	A	19881130
WO 8905355	P	19881201	WO AE	APPLICATION DATA (APPL. DATA)
		WO 88US4284	A	19881201
WO 8905355	P	19890615	WO AK	DESIGNATED STATES CITED IN A PUBLISHED APPLICATION WITH SEARCH REPORT (DESIGNATED STATES CITED IN A PUBLISHED APPL.

WO 8905355 P 19890615 WO A1 WITH SEARCH REPORT)
AU DK JP KR PUBLICATION OF THE
INTERNATIONAL APPLICATION WITH THE
INTERNATIONAL SEARCH REPORT (PUB. OF THE
INTERNATIONAL APPL. WITH THE INTERNATIONAL
SEARCH REPORT)


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4,981,784 or 4981784  

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DRUG DISCOVERY/TECHNOLOGY NEWS November, 1998

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DRUG DISCOVERY/TECHNOLOGY NEWS

November, 1998

SECTION: BASIC RESEARCH; Vol. 1, No. 11

LENGTH: 428 words

HEADLINE: Acacia and Aurora Cross-License

BODY:

Aurora Biosciences (110110 Torreyana Rd., San Diego, CA 92121; Tel: 619/452-5000, Fax 619/452-5723, Website: www.aurorabio.com), and Acacia Bioscience (4136 Lakeside Dr., Richmond, CA 94806; Tel: 510/669-2330, Fax 510/669-2334, Email: acacia@acaciabio.com, Website: www.acaciabio.com) have cross-licensed certain technologies with each other to enhance their respective drug discovery operations. The patents include U.S. Nos. 5,625,048, 5,777,079; 5,777,888, and 5,569,588.

Aurora will allow Acacia to use some parts of its fluorescent protein technology, while Acacia will allow Aurora to use some parts of its "Genome Reported Matrix" (GRM) technology. This agreement eliminates the pending lawsuits where each would have challenged the other's claims to these technologies. Timothy J. Rink, Aurora's chairperson, CEO and president, and Bruce Cohen, president and CEO of Acacia both note that the agreement meets their company's respective goals for maintaining their intellectual property positions and their plans for commercialization.

The "888" patent, titled "Systems for generating and analyzing stimulus-response output signal matrices," involves the use of neural networks and expert systems for analyzing stimulus-response patterns. One of the referenced patents, U.S. No. 4,981,784, "Retinoic acid receptor method," suggests the development of a system where, say, a binding reaction gives off a signal processed by a hybrid neural network/expert system. This might be set in an array, and the pattern of outputs of this array are then used to infer some aspect of biological activity relating to drug discovery. This approach is also suggested by the "588" patent where cells in an array are transfected with reporter genes such that genetic expression, termed "transcriptional responsiveness" is altered when exposed to certain drug compounds.

Aurora's technology is based on the "Ultra-High Throughput Screening System" (UHTSS). Similar in concept to GRM, Aurora is putting together a system of technologies built around proprietary fluorescent assays. The company has disclosed that it currently has six U.S. patents, two patent allowances, and another 100 patents applied for both in the U.S. and abroad. Aurora's "079" patent, "Modified green fluorescent proteins" and "048" patent, also for modified green fluorescent proteins, involves changing certain properties in certain sequence positions for green fluorescent protein genes so that fluorescence emits in a different frequency range than the natural version of the GFP gene.

LOAD-DATE: December 1, 1998

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Term: 4,981,784 or 4981784 (Edit Search)

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Biotechnology Newswatch, September 18, 1995

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Biotechnology Newswatch

September 18, 1995

SECTION: BUSINESS BRIEFS; Pg. 10

LENGTH: 178 words

HEADLINE: Ligand, ALRT settle patent suit with LJCRF

BODY:


Ligand Pharmaceuticals Inc. and Allergan Ligand Retinoid Therapeutics, Inc. (ALRT) have reached a mutual settlement agreement with the La Jolla Cancer Research Foundation (LJCRF), SelectRA Pharmaceuticals, Inc. and SRI International in a patent infringement suit.

The settlement includes a consent judgment that confirms the validity of four patents -- U.S. **4,981,784**; U.S. 5,071,773; U.S. 5,091,518; and U.S. 5,171,671 -- covering aspects of retinoid technology utilized in the discovery and characterization of retinoid compounds, said a Ligand official. The patents, which are owned by The Salk Institute for Biological Studies, are licensed exclusively to Ligand and exclusively sublicensed to ALRT for retinoid applications.

Pursuant to the settlement, the Ligand official added, the consent judgment also acknowledges an infringement of the patent rights principally by reason of activities surrounding SelectRA's proposed commercialization of retinoid technology. As part of the settlement, SelectRA, an affiliate of LJCRF, is being dissolved.

URL: <http://www.platts.com>

LOAD-DATE: September 19, 1995

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Terms: 4,981,784 or 4981784 ([Edit Search](#))

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Canada NewsWire Ltd., August 23, 1995

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August 23, 1995, Wednesday

SECTION: Financial News

DISTRIBUTION: Attention Business Editors

LENGTH: 765 words

HEADLINE: LIGAND AND ALRT SETTLE PATENT INFRINGEMENT SUIT AGAINST LA JOLLA CANCER RESEARCH FOUNDATION, SelectRA AND SRI

DATELINE: SAN DIEGO, Aug. 23

BODY:

Ligand Pharmaceuticals Incorporated (Nasdaq: LGND), Allergan Ligand Retinoid Therapeutics, Inc. (Nasdaq: ALRIZ) and the La Jolla Cancer Research Foundation (LJCRF) today announced that they have reached a mutual settlement agreement in the patent infringement litigation commenced by Ligand and the Allergan- Ligand joint venture against LJCRF and SelectRA Pharmaceuticals, Inc., an affiliate of LJCRF, and SRI International.

The settlement includes a consent judgment which confirms the validity of four patents (U.S. **4,981,784**; U.S. 5,071,773; U.S. 5,091,518; and U.S. 5,171,671) covering aspects of retinoid technology utilized in the discovery and characterization of retinoid compounds which are potentially valuable pharmaceutical products. The patents, which are owned by The Salk Institute for Biological Studies, are licensed exclusively to Ligand and exclusively sublicensed to Allergan Ligand Retinoid Therapeutics, Inc. (ALRT) for retinoid applications. Pursuant to the settlement, the consent judgment also acknowledges an infringement of the patent rights principally by reason of activities surrounding SelectRA's proposed commercialization of retinoid technology. As part of the settlement, SelectRA is being dissolved.

The settlement also includes a cross-licensing arrangement, with no party paying any damages. LJCRF and SRI have been granted a royalty- free, limited license to use the technology covered by the patents-in-suit for basic research purposes. LJCRF and SRI have in turn granted options to Ligand to acquire exclusive, worldwide, royalty-bearing license rights to inventions and patent rights which result from the use by the LJCRF and SRI of the licensed patent rights. ALRT acquires rights to such inventions and patent rights having retinoid applications as a result of Ligand's blanket sublicense to ALRT of its rights to retinoid technology. Under the settlement, Ligand and ALRT will have the opportunity to evaluate certain retinoid compounds prepared at SRI and, at ALRT's option, develop for commercial purposes those of interest to it.

"ALRT has a broad and strong patent position in the field of retinoid technology, and we will continue to aggressively protect these important intellectual property assets while proceeding equally aggressively to commercialize this technology," according to Dr. Marvin Rosenthale, ALRT President.

"Ligand is pleased with this settlement which achieves our original goals for initiating this litigation. We are also pleased that the settlement provides that certain retinoid technology invented by the La Jolla Cancer Research Foundation and SRI International can be commercially exploited by ALRT," according to David E. Robinson, Ligand President and Chief Executive Officer.

"The Foundation is pleased to enter into this settlement with Ligand so as to secure the Foundation's right to use the patented technology for conducting the Foundation's basic scientific research programs," according to Erkki Ruoslahti, M.D., President of LJCRF. "The Foundation's discoveries can now be commercialized through Ligand or ALRT, and the Foundation is optimistic that they will be successful in developing and marketing products arising from this technology, which may result in royalty payments to support the Foundation's further basic scientific research efforts."

Allergan Ligand Retinoid Therapeutics, Inc. is a newly formed company whose primary purpose is to discover and develop drugs based on retinoids. Retinoids have a broad range of biological actions, and evidence suggests that retinoids may be useful in the treatment of skin diseases, a variety of cancers, including kidney cancer, certain forms of leukemia and other cancers, as well as eye diseases.


Ligand Pharmaceuticals Incorporated, founded in 1987, is a leader in gene transcription technology, particularly intracellular receptor (IR) technology and Signal Transducers and Activators of Transcription (STATs). Ligand applies IR and STATs technology to the discovery and development of small molecule drugs to enhance therapeutic and safety profiles and to address major unmet patient needs in cancer, women's health and skin diseases, as well as osteoporosis, cardiovascular and inflammatory disease.

The La Jolla Cancer Research Foundation, located in La Jolla, California, was established in 1976 as a non-profit biomedical research institute to investigate the biological roots of cancer with the goal of finding complete and noninvasive cures for the disease.

For further information: Susan E. Atkins, Ligand and ALRT contact, (619) 550-7687; or Louis Coffman of La Jolla Cancer Research Foundation, (619) 455-6480, ext. 202

LN-ORG: LA JOLLA CANCER RESEARCH FOUNDATION (92%);

LOAD-DATE: August 23, 1995

Source: [News & Business > News > News, All \(English, Full Text\)](#) 


Terms: **4,981,784 or 4981784** ([Edit Search](#))

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PR Newswire, August 23, 1995

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August 23, 1995, Wednesday

SECTION: Financial News

DISTRIBUTION: TO BUSINESS EDITOR

LENGTH: 796 words

HEADLINE: LIGAND AND ALRT SETTLE PATENT INFRINGEMENT SUIT AGAINST LA JOLLA CANCER RESEARCH FOUNDATION, SelectRA AND SRI

BODY:

Ligand Pharmaceuticals Incorporated (Nasdaq: LGND), Allergan Ligand Retinoid Therapeutics, Inc. (Nasdaq: ALRIZ) and the La Jolla Cancer Research Foundation (LJCRF) today announced that they have reached a mutual settlement agreement in the patent infringement litigation commenced by Ligand and the Allergan- Ligand joint venture against LJCRF and SelectRA Pharmaceuticals, Inc., an affiliate of LJCRF, and SRI International.

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SAN DIEGO, Aug. 23

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LOAD-DATE: August 24, 1995

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Business Wire, December 13, 1993

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December 13, 1993, Monday

DISTRIBUTION: Business Editors & Pharmaceutical/Biotechnology Writers

LENGTH: 810 words

HEADLINE: Allergan-Ligand joint venture sues La Jolla Cancer Research Foundation, SRI International and SelectRA for patent infringement

DATELINE: SAN DIEGO

BODY:

Ligand Pharmaceuticals Inc. (NASDAQ/NMS:LGND) and Allergan Inc. (NYSE:AGN) Friday announced that their joint venture has filed suit against La Jolla Cancer Research Foundation (LJCRF), SRI International (SRI) and SelectRA Pharmaceuticals Inc. for infringement of patents licensed to the joint venture.

The joint venture has rights to numerous patents issued or allowed in the retinoid field and many more patent applications pending.

The suit filed in U.S. District Court for the Southern District of California in San Diego Friday seeks to prevent LJCRF and SRI from commercializing through SelectRA (a corporation organized for that purpose), the technology exclusively licensed to Ligand and the Allergan-Ligand joint venture.

LJCRF has stated publicly that SelectRA will develop retinoid compounds that are highly specific for individual retinoid receptors, and LJCRF President and Chief Executive Officer Erkki Ruoslahti said, in a recent article in a biotechnology trade publication, that this technology will compete directly against Ligand.

"The Allergan-Ligand joint venture has established a leadership position in the retinoid field based upon important proprietary advances in the field which have been very productive in discovering new drugs.

"Two new retinoid products, LGD1057 and LGD1069, discovered using this technology, are nearing human clinical testing," according to David E. Robinson, Ligand president and chief executive officer. "We view the infringing of our intellectual property most seriously and intend to vigorously enforce our patent rights in the field to the fullest extent possible."

The four patents which are the subject of the infringement suit are licensed exclusively by the Salk Institute For Biological Studies to Ligand and are utilized by the joint venture to discover and characterize retinoid compounds which are potentially valuable pharmaceutical products.

U.S. Patent Nos. **4981784** and 5071773 are for the co-transfection assay, a very sensitive assay used in compound identification. U.S. Patent No. 5171671 covering the RAR gene and

U.S. Patent No. 5091518 for the RAR beta response element are both composition of matter patents for important elements of the co-transfection assay.

"Allergan itself has established more than 28 patents in the retinoid area also licensed to the joint venture," said William C. Shepherd, Allergan president and chief executive officer. "Retinoids are an area of rapidly growing interest in medicine, and we are prepared to defend these important properties of the joint venture."

"Ligand, Allergan and our exclusive collaborators have collectively dedicated nearly a decade to making major proprietary advances in the retinoid field resulting in patents and patent filings on the key tools in drug discovery (receptor proteins, genes and assays) novel synthetic chemical compounds and important method of use applications as the biological role of retinoids has been elucidated," Robinson said.

"We believe that intellectual property rights are important shareholder assets. We view very seriously late entrants in the field in violation of these rights and cannot permit infringers to diminish the rewards to our shareholders."

As part of the suit, Ligand is also suing SRI for breach of a contract between SRI and Ligand giving Ligand the first right to evaluate for pharmaceutical application and commercialize retinoid compounds synthesized at SRI.

Company Background


With 60 scientists devoted to retinoid drug discovery research, the Allergan-Ligand joint venture represents one of the largest retinoid efforts in the pharmaceutical industry. Retinoids have been used successfully for dermatological diseases for some time, but they represent a relatively new approach to treating cancer.

Ligand Pharmaceuticals, founded in 1987, is a leader in intracellular receptor (IR) technology. Ligand applies IR technology to the discovery and development of small molecule drugs to enhance therapeutic and safety profiles and address major unmet patient needs in cancer, women's health and skin diseases, as well as osteoporosis, cardiovascular and inflammatory disease.

Allergan, a global health care company headquartered in Irvine, Calif., develops, manufactures, and markets specialty therapeutic products for eye and skin care and neuromuscular disorders. A technology-driven company, Allergan is working to be the partner of choice for ever better health care.

CONTACT: Allergan Inc., Irvine
Jeff D'Eliscu, 714/752-4636 (office)
714/675-9475 (home)
or
Ligand Pharmaceuticals Inc., San Diego
Susan Atkins, 619/550-7687 (office)
619/451-0772 (home)

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Business Wire, December 10, 1993

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December 10, 1993, Friday

DISTRIBUTION: Business Editors & Pharmaceutical/Biotechnology Writers

LENGTH: 810 words

HEADLINE: Allergan-Ligand joint venture sues La Jolla Cancer Research Foundation, SRI International and SelectRA for patent infringement

DATELINE: SAN DIEGO

BODY:

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CONTACT: Allergan Inc., Irvine
Jeff D'Eliscu, 714/752-4636 (office)
714/675-9475 (home)
or
Ligand Pharmaceuticals Inc., San Diego
Susan Atkins, 619/550-7687 (office)
619/451-0772 (home)

LOAD-DATE: December 11, 1993

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